

REMARKS

Claims 1-57 were examined and reported in the Office Action. Claims 14-57 are withdrawn from further consideration. Claims 1-4, 6-11 and 13 are rejected. Claims 2-3 and 10 are cancelled. Claims 1 and 7 are amended. Claims 1, 4-9, and 11-57 remain remain.

Applicant requests reconsideration of the application in view of the following remarks.

I. 35 U.S.C. §102(b)

It is asserted in the Office Action that claims 1-4, 6-11 and 13 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,060,756 issued to Machida et al ("Machida"). Applicant respectfully disagrees.

According to MPEP §2131, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.' (Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). 'The identical invention must be shown in as complete detail as is contained in the ... claim.' (Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)). The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e., identity of terminology is not required. (In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990))."

Applicant's amended claim 1 contains the limitations of "A surface shape recognition sensor comprising: a plurality of capacitive detection elements formed from lower electrodes and a deformable plate-like upper electrode made of a metal, the lower electrodes being insulated and isolated from each other and stationarily laid out on a single plane of an interlevel dielectric formed on a semiconductor substrate, and the upper electrode being laid out above the lower electrodes at a predetermined

interval and having a plurality of opening portions; a support electrode laid out around the lower electrodes while being insulated and isolated from the lower electrodes, and formed to be higher than the lower electrodes to support the upper electrode; a protective film formed on the upper electrode to close the opening portions; and a plurality of projections per one pixel laid out in a region of said protective film above said capacitive detection element.

Applicant's claimed invention has the feature that it has a plurality of projections to one pixel, thus the probability becomes high that the upper electrode changes when an object comes into contact (See Applicant's specification, page 18, lines 22-27). With Applicant's claimed invention, a structure having a high mechanical strength and a high and thin shape can be formed, thus it becomes possible to suppress that a projection is buried in an object (See Applicant's specification, page 23, lines 5-13), improving sensitivity. Additionally, as a result of providing the electrode insulating film on the lower electrode, since the contact between the upper electrode and the lower electrode can be prevented and the capacity formed can be increased, the reliability and the sensitivity can be improved. (See Applicant's specification, page 45 lines 2-7).

Machida discloses a surface shape recognition sensor with capacitance detection elements arranged in the same plane on an interlevel dielectric film formed on a semiconductor substrate and insulated from one another. Machida also discloses capacitance detection means with a stationary electrode disposed on the interlevel dielectric film and isolated from the sensor electrodes. Distinguishable from Applicant's claimed invention, Machida discloses only one projection is formed on the upper electrode to one pixel (although a plurality of projections are provided on the upper electrode as the whole on the sensor surface) (See Machida, Figures 1, 2, 3K, 5, 6 and 8).

Additionally, Machida does not disclose, teach or suggest that the shape of the projection improves the sensitivity. Further, Machida does not disclose, teach or suggest the electrode insulating film formed between the upper electrode and the lower electrode face each other. Moreover, according to Applicant's claimed invention, the electrode insulating film is provided on the lower electrode, and the upper electrode is

formed by separating the hollow portion. Therefore, when the sensing object (such as fingers) comes in contact, the electrostatic capacity between the upper electrode and the lower electrode changes. Thus Machida is distinguishable from Applicant's claimed invention in terms of the sensor structure and the film constitution for which the insulating film is used, and the detection principles (the principle of forming electrostatic capacity) are distinguishable as well.

Regarding the assertion in the Office Action that the shape of the passivation film is "substantially the same shape of the lower electrode," Applicant notes that there is no such description in column 3, lines 51-67. As illustrated in Figures 10, 11F, 12, 14, 16 and 17D, it is a larger shape than the sensor electrode that covers the sensor electrode and reaches ground electrode 1006. According to Applicant's claimed invention, however, the electrode insulating film on the lower electrode is almost the same shape as that of the lower electrode.

Thus, Machida does not disclose, teach or suggest the limitations contained in Applicant's amended claim 1, as listed above. Since Machida does not disclose, teach or suggest all of Applicant's amended claim 1, as listed above, Applicant respectfully asserts that a *prima facie* rejection under 35 U.S.C. §102(b) has not been adequately set forth relative to Machida. Thus, Applicant's amended claim 1 is not anticipated by Machida. Additionally, the claims that depend directly or indirectly from Applicant's claim 1, namely claims 4, 6-9, 11 and 13 (claims 2-3 and 10 being cancelled), are also not anticipated by Machida for the above same reasons.

Accordingly, withdrawal of the 35 U.S.C. §102(b) rejections for claims 1-4, 6-11 and 13 are respectfully requested.

II. Allowable Subject Matter

Applicant appreciates the Examiner's assertion that claims 5 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant respectfully asserts that claims 1, 4-9 and 11-13, as it now stands, are allowable for the reasons given above.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending, namely claims 1, 4-9 and 11-13, patentably define the subject invention over the prior art of record and are in condition for allowance and such action is earnestly solicited at the earliest possible date.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail with sufficient postage in an envelope addressed to: Mail Stop Non-Fee Amendments, Commissioner for Patents, P. O. Box 1450, Alexandria, Virginia 22313-1450 on March 24, 2004.


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